UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/498,891	02/07/2000	Mika Rinne	297-009169-US(PAR)	9436

7590 06/02/2004

Clarence A Green
Perman & Green
425 Post Road
Fairfield, CT 06430

EXAMINER	
MOLINARI, MICHAEL J	

ART UNIT	PAPER NUMBER
2665	14

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 14

Application Number: 09/498,891
Filing Date: February 07, 2000
Appellant(s): RINNE ET AL.

Joseph V. Gamberdell, Jr.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 26 April 2004.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) Status of Claims

The statement of the status of the claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

Claims 1-24 are pending in the application.

This appeal involves claims 1-24.

Claims 1-24 have been rejected.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-24 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

A substantially correct copy of appealed claims 1-24 appears on pages 21-27 of the Appendix to the appellant's brief. The claims do not reflect the amendment that was filed on2 January 2004 and that was entered on 28 January 2004. The minor errors are as follows:

In claim 2, on line 7, the word "delivering" should be replaced with "signaling".

In claim 3, on line 8, the word "delivering" should be replaced with "signaling".

In claim 4, on line 8, the word "delivering" should be replaced with "signaling".

In claim 5, on line 8, the word "delivering" should be replaced with "signaling".

In claim 6, on line 1, the word "delivering" should be replaced with "signaling".

In claim 7, on line 1, the word "delivering" should be replaced with "signaling".

In claim 8, on line 1, the word "delivering" should be replaced with "signaling".

In claim 9, on line 1, the word "delivering" should be replaced with "signaling".

In claim 10, on line 2, the word "delivering" should be replaced with "signaling".

In claim 11, on line 2, the word "delivering" should be replaced with "signaling".

Replace claim 13 with:

A method for transferring information over a data connection according to a protocol stack where certain first protocol layers and certain second protocol layers exist, comprising: creating a protocol identifier; determining a value for said protocol identifier in accordance with the first protocol layers in said protocol stack; signaling said protocol identifier to the second protocol layers in said protocol stack; adapting said protocol identifier so as to comprise elements including a first element and a second element; determining each element of said protocol identifier on the basis of a certain part of the first protocol layers; and determining said second element so that it defines in more detail a certain part of the first protocol layers generally defined by said first element.

In claim 21, on line 5, the word "deliver" should be replaced with "signal".

In claim 22, on line 3, the word "deliver" should be replaced with "signal".

In claim 23, on line 6, the word "deliver" should be replaced with "signal".

In claim 24, on line 3, the word "deliver" should be replaced with "signal".

(9) Prior Art of Record

Stevens, Richard W., "TCP/IP Illustrated, Volume 1", 1994, Addison Wesley, pages 21-23, 53-59 and 65

5,535,199	AMRI et al	07-1996
5,446,736	GLEESON et al	08-1995

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 9-12, 14, 16, 18, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The word "certain" renders the claims indefinite. Appropriate correction is required.

3. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language "defines in more detail a certain part of the first protocol layer generally defined by said first element" is vague and indefinite because it is unclear as to what is intended to be the claimed limitation.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 6, 8-10 and 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Stevens ("TCP/IP Illustrated, Volume 1").

3. Referring to claim 1, Stevens discloses a method for transferring information over a data connection according to a protocol stack where certain first protocol layers (Ethernet, which is a link layer protocol, see Section 2.2, pages 21-23) and certain second protocol layers (IP, which is a network layer protocol, see Section 2.2, pages 21-23) exist, comprising the steps of creating a protocol identifier (Type field, see page 22, lines 25-27), determining a value for said protocol identifier in accordance with the first protocol layers in said protocol stack (see Fig. 2.1, page 23, and note that the IP datagram has one value (0800), the ARP request/reply has another (0806), and the RARP request reply has yet a third (8035)), and signaling said protocol identifier to the second protocol layers in said protocol stack (see Fig. 2.1, page 23, and note that the IP datagram, which is passed on to the network layer, contains the type field that identifies it as an IP packet).

4. Referring to claim 2, Stevens discloses the steps of establishing a data connection between a first communications apparatus and second communications apparatus (see Fig. 4.4, page 58, and note the connection between the source (bsdi, see page 58, line 23) and a destination (in this example, the destination address is ff:ff:ff:ff:ff:ff, which is a broadcast

address. However, looking at line 2 of Fig. 4 it can be seen that the message was received by 0:0:c0:c2:9b:26, which then replied). See also Figure 4.2 on page 55 which more clearly shows the connection between the two devices), determining a value for said protocol identifier in said first communications apparatus (see line 1 of Fig. 4 and note that the frame type field is "arp") and delivering said protocol identifier from the first communications apparatus to the second communications apparatus (Again, Fig. 4 shows that the frame was received by 0:0:c0:c2:9b:26, who then replied).

5. Referring to claim 6, Stevens discloses the step of delivering said protocol identifier over said data connection (see Section 4.2, pages 54-56, and see Fig. 4.2).

6. Referring to claim 8, Stevens discloses the step of delivering said protocol identifier in conjunction with the opening of said data connection (see page 22, lines 24-30 and note that every Ethernet frame contains the type field, including the frames that are used in establishing a data connection using TCP/IP).

7. Referring to claim 9, Stevens discloses the step of delivering said protocol identifier at a certain stage after the opening of said data connection (see page 22, lines 24-30 and note that every Ethernet frame contains the type field, so the protocol identifier is delivered at every state of the data connection).

8. Referring to claim 10, Stevens discloses the step of repeatedly delivering said protocol identifier at certain intervals (see page 22, lines 24-30 and note that every Ethernet frame contains the type field, so the protocol identifier is delivered with every packet, so that the interval between packets is the same as the "certain interval" at which the identifier is sent).

9. Referring to claim 14, Stevens discloses the step of placing said protocol identifier into a protocol frame of a certain protocol layer together with certain data to be transferred (see page 22, lines 17-44 and see Fig. 2.1 on page 23).

10. Referring to claim 15, Stevens discloses the step of placing said protocol identifier into a field within a protocol frame which field is reserved for the protocol identifier (see page 22, lines 17-44 and see Fig. 2.1 on page 23).

11. Referring to claim 16, Stevens discloses the step of placing said protocol identifier into a field within a protocol frame of a certain logical link control protocol (see page 22, lines 17-44 and see Fig. 2.1 on page 23. The "certain logical link control protocol" is Ethernet).

12. Referring to claim 17, Stevens discloses the step of determining a value for said protocol identifier in accordance with the contents of the data transferred over said data connection (see Fig. 2.1 on page 23 and note that the type of data contained in the Ethernet frame determines the contents of the protocol identifier field – 0800 for an IP datagram, 0806 for an ARP request/reply, or 8035 for a RARP request/reply).

13. Referring to claim 18, Stevens discloses a communications apparatus arranged to transfer information to another communications apparatus in accordance with a protocol stack comprising certain first protocol layers (Ethernet, which is a physical/link layer protocol, see Section 2.2, pages 21-23) and certain second protocol layers (TCP/IP, which is a network/transport layer protocol, see Section 2.2, pages 21-23), comprising means for creating a protocol identifier (Type field, see page 22, lines 25-27), means for determining the value of said protocol identifier in accordance with the first protocol layers of said protocol stack (see Fig. 2.1, page 23, and note that the IP datagram has one value (0800), the ARP request/reply has another

(0806), and the RARP request reply has yet a third (8035)), and means for signaling said protocol identifier to the second protocol layers of said protocol stack in either said communications apparatus itself or in said other communications apparatus (see Fig. 2.1, page 23, and note that the IP datagram, which is passed on to the network layer, contains the type field that identifies it as an IP packet).

14. Referring to claim 19, Stevens discloses a communications apparatus arranged to transfer information from another communications apparatus in accordance with a protocol stack comprising first (Ethernet, which is a physical/link layer protocol, see Section 2.2, pages 21-23) and second protocol layers (TCP/IP, which is a network/transport layer protocol, see Section 2.2, pages 21-23), comprising means for signaling to (see Section 4.2, pages 54-56) said second protocol layers a protocol identifier the value of which is determined in accordance with the first protocol layers of said protocol stack (see Fig. 2.1, page 23, and note that the IP datagram has one value (0800), the ARP request/reply has another (0806), and the RARP request reply has yet a third (8035)).

15. Referring to claim 20, Stevens discloses a data communications system comprising a first communications apparatus and second communications apparatus (see Fig. 4.2, page 55, which shows 3 communication apparatuses, including one above and two below), means for transferring information between said first and second communications apparatuses in accordance with a protocol stack comprising certain first protocol layers (Ethernet, which is a physical/link layer protocol, see Section 2.2, pages 21-23) and certain second protocol layers (TCP/IP, which is a network/transport layer protocol, see Section 2.2, pages 21-23), at least in the first communications apparatus means for creating a protocol identifier (Type field, see page

22, lines 25-27), at least in the first communications apparatus means for determining the value of said protocol identifier in accordance with the first protocol layers of said protocol stack (see Fig. 2.1, page 23, and note that the IP datagram has one value (0800), the ARP request/reply has another (0806), and the RARP request reply has yet a third (8035)), and at least in the first communications apparatus means for signaling said protocol identifier to the second protocol layers of said protocol stack (see Fig. 4.2, apge 55).

16. Claims 1, 7 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Amri et al. (U.S. Patent No. 5,535,199).

17. Referring to claim 1, Amri et al. disclose a method for transferring information over a data connection according to a protocol stack (see Fig. 4) where certain first protocol layers (TCP/IP) and certain second protocol layers (X.25) exist, comprising the steps of creating a protocol identifier (see column 7, lines 57-61), determining a value for said protocol identifier in accordance with the first protocol layers in said protocol stack (see column 7, lines 63-66) and delivering said protocol identifier to the second protocol layers in said protocol stack (see Figures 6A and 6B).

18. Referring to claim 7, Amri et al. disclose the step of delivering said protocol identifier over a control connection which is different than said data connection (see column 4, lines 57-60).

19. Referring to claim 11, Amri et al. disclose the steps of determining and delivering said protocol identifier more than once during said data connection (see column 7, lines 65-67 and column 8, lines 1-2), determining said protocol identifier at each time on the basis of a certain part of the first protocol layers (see column 7, lines 65-67 and column 8, lines 1-2 and note that

the determination depends on whether compressed or uncompressed TCP/IP will be used), and choosing said part of the first protocol layers such that the chosen part is not identical at all instances of determination (see column 7, lines 65-67 and column 8, lines 1-5 and note that the compression scheme may or may not be agreed to).

20. Referring to claim 12, Amri et al. disclose the steps of adapting said protocol identifier so as to comprise elements (each identifier is made up of 2 bytes, which are elements, see column 7, lines 65-66) and determining each element of said protocol identifier on the basis of a certain part of the first protocol layers (see column 7, lines 65-67 and column 8, lines 1-2 and note that the bytes are different depending on whether compressed or uncompressed TCP/IP will be used).

21. Claims 20-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Gleeson et al. (U.S. Patent No. 5,446,736).

22. Referring to claim 20, Gleeson discloses a data communications system comprising a first communications apparatus (STATION 1, see Fig. 4) and second communications apparatus (STATION 2, see Fig. 4), means for transferring information between said first and second communications apparatuses (see Fig. 4, #416) in accordance with a protocol stack (see Fig. 4 and note that each STATION comprises a protocol stack) comprising certain first protocol layers (Optimization Layer, see Fig. 9, #912) and certain second protocol layers (Wireless Network Access Protocol, see Fig. 9, #916), at least in the first communications apparatus means for creating a protocol identifier (Compression ID, see column 14, lines 34-38), at least in the first communications apparatus means for determining the value of said protocol identifier in accordance with the first protocol layers of said protocol stack (see column 14, lines 34-38), and

at least in the first communications apparatus means for delivering said protocol identifier to the second protocol layers of said protocol stack (see column 14, lines 43-45).

23. Referring to claim 21, Gleeson discloses that the first communications apparatus is a wireless terminal (Mobile Client Node, see column 15, lines 17-19) in a radio access network, that said means for transferring information is arranged to deliver said protocol identifier to the second communications apparatus (see column 15, lines 17-19), and that the second communications apparatus is a network element in said radio access network (Server Node, see column 15, lines 17-19).

24. Referring to claim 22, Gleeson discloses that said means for transferring information is arranged to deliver said protocol identifier across a radio interface of a mobile network in a call control connection (see column 14, lines 4-7 and column 15, lines 17-19. Gleeson teaches including the Compression ID field in all PDUs, which would include management as well as regular data PDUs).

25. Referring to claim 23, Gleeson discloses that the first communications apparatus is a network element in a radio access network (Server Node, see column 14, lines 43-45), that said means for transferring information is arranged to deliver said protocol identifier to the second communications apparatus (see column 14, lines 43-45), and the second communications apparatus is a wireless terminal in said radio access network (Mobile Client Node, see column 14, lines 43-45).

26. Referring to claim 24, Gleeson discloses that said means for transferring information is arranged to deliver said protocol identifier across a radio interface of a mobile network in a call control connection (see column 14, lines 4-7 and lines 43-45. Gleeson teaches including the

Compression ID field in all PDUs, which would include management as well as regular data PDUs).

Claim Rejections - 35 USC § 103

27. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

28. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens ("TCP/IP Illustrated, Volume 1").

29. Referring to claim 3, Stevens discloses establishing a data connection between a first communications apparatus and a second communications apparatus (see Fig. 4.4, page 58, and note the connection between the source (bsdi, see page 58, line 23) and a destination (in this example, the destination address is ff:ff:ff:ff:ff:ff, which is a broadcast address. However, looking at line 2 of Fig. 4 it can be seen that the message was received by 0:0:c0:c2:9b:26, which then replied). See also Figure 4.2 on page 55 which more clearly shows the connection between the two devices) and determining a value for said protocol identifier in said first communications apparatus (see line 1 of Fig. 4 and note that the frame type field is "arp"). Stevens differs from claim 3 in that he fails to disclose the use of a third communications apparatus. However, the Examiner takes official notice that it is common in Ethernet networks to use a hub to connect a plurality of network devices that communicate to each other using the Ethernet protocol. The use of a hub has the advantage of simplifying the wiring in an Ethernet network. One skilled in

the art would have recognized the advantage of using a hub in an Ethernet network. Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention to incorporate the use of a hub in the Ethernet network of Stevens to achieve the advantage of simplifying the wiring plan in the Ethernet network. Because all signals that are sent and received by a device are transmitted via the hub, the use of a hub as a third communications device would necessarily include delivering the protocol identifier from the first (sending) apparatus to the third communications apparatus (the hub).

30. Referring to claim 4, Stevens discloses the steps of establishing a data connection between a first communications apparatus and a second communications apparatus (see Fig. 4.4, page 58, and note the connection between the source (bsdi, see page 58, line 23) and a destination (in this example, the destination address is ff:ff:ff:ff:ff:ff, which is a broadcast address. However, looking at line 2 of Fig. 4 it can be seen that the message was received by 0:0:c0:c2:9b:26, which then replied). See also Figure 4.2 on page 55 which more clearly shows the connection between the two devices) and determining a value for said protocol identifier (see Fig. 4.4, line 2 and note that the frame type field is "arp"). Stevens differs from claim 4 in that he fails to disclose a third communications apparatus, through which the first two communications apparatuses communicate. However, the Examiner takes official notice that the use of routers to enable two nodes in a network to communicate is well known in the art. The use of routers has the advantage of intelligently routing IP traffic through a complex network. One skilled in the art would have recognized the advantage of using routers in a network. Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention to incorporate the use of routers into a network to achieve the advantage of

intelligently routing IP traffic through a complex network. Because routers that use Ethernet interfaces must de-encapsulate and re-encapsulate the IP data contained in Ethernet frames, the router would necessarily need to determine the value for the frame type field of the Ethernet frame in the arp reply taught by Stevens, thus meeting the limitations that the protocol identifier is determined in said third apparatus and that the protocol identifier is delivered from said third apparatus to said first apparatus.

31. Referring to claim 5, as explained in claim 4 above, the Examiner takes official notice that the use of routers in networks is well known in the art. Furthermore, routed networks where packets must traverse multiple routers between sending and receiving nodes are also well known in the art. At each router, the IP data must be de-encapsulated, routed, and re-encapsulated before being transmitted out the appropriate interface to the next node. It is during the re-encapsulation process that the protocol identifier (type field in the Ethernet frame) is determined. This field is delivered from each node to each successive node, in both directions. Therefore, such a network would necessarily require that the third and fourth apparatuses would determine protocol identifiers and deliver them to each other throughout the communication described by Stevens on pages 54-58.

Allowable Subject Matter

32. Claim 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

33. Pursuant to Section 2144.03, Section C of the MPEP, the examiner notes that Applicant has failed to traverse the examiner's assertion of official notice taken in the prior office action. Therefore, the assertion of official notice taken is considered to be admitted prior art.

(11) Response to Argument

Issue 1

Group I, Claims 1-17

In response to Applicant's argument that the Stevens reference does not apply to the instant application because the Stevens reference is drawn to landline networks and the instant invention is for wireless networks, the examiner has two responses. The first is that nowhere in the claims is there any indication that the invention is for use in wireless networks. Although the claims are read in light of the specification, limitations from the specification are not read into the claims. Therefore, since the claims do not recite any limitations regarding wireless networks, it is moot to argue that Stevens is intended for use in landline networks and that it does not apply to the instant application. The second response is that, although TCP/IP is most often used in landline networks, TCP/IP is also used in wireless networks and the prior art is full of examples of wireless networks that utilize TCP/IP as a protocol. The only reason that no references were provided to demonstrate this fact is that, again, none of the claims are drawn to wireless networks.

In response to Applicant's argument that there is no disclosure in the cited reference about signaling a protocol identifier, the examiner points to page 22, lines 25-27 (the *type* field)

and Figure 2.1 on page 23 which again shows the use of the *type* field. The *type* field identifies the type of data that is encapsulated within the frame (and is therefore an identifier) and is used as part of the Ethernet protocol, clearly making it a protocol identifier. Furthermore, the type field meets the remainder of the limitations cited in the claims, as shown in the most recent rejection.

In response to Applicant's argument that Stevens has no need to signal "anything about protocols", the Examiner submits that Stevens uses the *type* field to perform protocol signaling.

In response to Applicant's argument that Stevens has no need to signal "anything about protocols" because the terminal will remain in a fixed location, the examiner submits first, that the claims do not cite anything about movement or mobility, rendering such an argument moot, and that the Stevens reference does not pertain solely to landline networks.

In response to Applicant's argument that the information in the *type* field of the Stevens reference is not available to any entity other than exactly the same protocol layer in a peer device, the examiner's response is that none of the claims recite the limitation that the information contained in the protocol identifier is "available to any entity other than exactly the same protocol layer in a peer device". Specifically, claim 1 recites that the protocol identifier is signaled to the second protocol layers. Figure 2.1 on page 23 of the Stevens reference clearly shows that the *type* field is part of the IP datagram (which comes from layers 3-7 in the OSI model) and that it is signaled to the Ethernet layer (which is part of the data link layer, which is layer 2 in the OSI model) where it is encapsulated in an Ethernet frame. It is also signaled to the physical layer after encapsulation. Later claims, such as claim 2, contain the limitation that the protocol identifier is signaled from a first communication apparatus to a second (or third)

communication apparatus. Clearly, transmitting from one communications apparatus to another communications apparatus is the whole point of creating the Ethernet frame in the first place and there can be no question that the Ethernet frames (containing the *type* field) are transmitted from one communications apparatus to another communications apparatus.

Finally, the examiner submits that Applicant has merely read into the claims limitations which are not there. As the record shows, Applicant appears to believe that the claim limitation "signaling said protocol identifier" to another layer in the protocol stack further implies that the second layer is able to read the identifier, process it, and perform operations based on what is contained in the protocol identifier. The claim language does not support such an interpretation. The claim language merely states that the protocol identifier is signaled from one protocol layer to another protocol layer. The examiner submits that all devices that use a plurality of protocol layers must, necessarily, signal data from one protocol layer to the next protocol layer, and that virtually all instances of encapsulation read on the claims, as currently written.

In response to Applicant's argument concerning protocol primitives, it is submitted that such argument is moot because neither the claims nor the rejection of said claims makes any reference to protocol primitives as described by Applicant in the arguments. The examiner maintains that a protocol identifier is signaled from one protocol layer to another protocol layer in the communications apparatus.

Group II, Claim 18

In response to Applicant's argument that Stevens fails to disclose or suggest a means for signaling a protocol identifier to the second protocol layers of the protocol stack in either the

communications apparatus or the other communications apparatus, the examiner has shown in his arguments regarding Group I that Stevens does teach such a limitation.

In response to Applicant's argument that Stevens fails to teach signaling the protocol identifier to a different apparatus, the examiner has two responses. The first response is that the claim is written using the word "or", specifically, "means for signaling said protocol identifier to the second protocol layers of said protocol stack in **either** said communications apparatus itself **or** in said other communications apparatus". A reference that teaches merely signaling the protocol identifier to the second layers of said protocol stack in the communications apparatus itself, even if it did not teach signaling the protocol identifier to the second layers of said protocol stack in said other communications apparatus, would read on the claim as written. As shown regarding Group I, Stevens clearly teaches signaling a protocol identifier from one protocol layer to another protocol layer within the same apparatus and, therefore, clearly reads on claim 18. The second response is that Stevens teaches that the protocol identifier is signaled to **both** the second protocol layers of said protocol stack in said communications apparatus itself (as shown above) **and** the second protocol layers of said other communications apparatus. The reason for this is the nature of layered communications. A field that is transmitted from one device at layer 3 to another device at layer 3 must traverse the second layer and then the first layer of the sending device, is then received by the second device at the first layer and is then signaled to the second layer and then the third layer. Therefore, a field that is transmitted from one device at layer 3 to another device at layer device is actually signaled to layers 1 and 2 in the sending device ("said communications apparatus itself") **and** to layers 1, 2, and 3 in the receiving device ("said other communications apparatus").

In response to Applicant's argument concerning protocol primitives, it is submitted that such argument is moot because neither the claims nor the rejection of said claims makes any reference to protocol primitives as described by Applicant in the arguments. The examiner maintains that a protocol identifier is signaled from one protocol layer to another protocol layer in the communications apparatus.

Group III, Claim 19

Claim 19 is similar to claim 18 except that it is drawn to the receiving device as opposed to the sending device that is claimed in claim 18.

In response to Applicant's argument that Stevens fails to disclose or suggest a means for signaling a protocol identifier to the second protocol layers, the value of which has been determined in accordance with the first layers, the examiner maintains that he has clearly demonstrated in all of the office actions and in the responses above that Stevens does teach that a protocol identifier, the value of which has been determined by a first protocol layers, is signaled to a second protocol layers.

Group IV, Claims 20-24

In response to Applicant's argument that Stevens fails to disclose or suggest a means for signaling a protocol identifier to the second protocol layers, the value of which has been determined in accordance with the first layers, the examiner maintains that he has clearly demonstrated in all of the office actions and in the responses above that Stevens does teach that a protocol identifier, the value of which has been determined by a first protocol layers, is signaled to a second protocol layers.

Issue 2

In response to Applicant's argument that in Amri et al. there is no disclosure related to signaling a protocol identifier determined in accordance with first protocol layers to second protocol layers, the examiner points first to Figure 4, which clearly shows a plurality of communications apparatuses (Host 1 and Host 2), each communications apparatus having a protocol stack comprising a plurality of protocol layers. The IP layer is one layer and the X.25 layer is another layer. Not shown is the physical layer, which is inherent because it is required for all data communications. Data is transferred from one communications apparatus to the other communications via the PDN Network, shown as #94 in Figure 4. TCP/IP packets are encapsulated and transmitted over the X.25 network. In column 8, lines 29-32, Amri et al. teach that encapsulation (signaling of data from one protocol layer to another protocol layer) is performed by the "IP to X.25 Encapsulation" module ("IXE"). Furthermore, in column 7, lines 57-67 and column 8, lines 1-2, Amri et al. teach the use of the PID field, which is determined according to the IP protocol and transmitted over the network. This field must be encapsulated for transmission. Therefore, Amri et al. do teach signaling a protocol identifier that is determined in accordance with first protocol layers to second protocol layers.

In response to Applicant's argument concerning the teaching in Amri et al. that a packet from one protocol is "chopped into pieces", the examiner has two responses. The first response is that it is irrelevant whether it is signaled to the second protocol layers "chopped into pieces" or whole. Either way, it is still signaled to the second protocol layers. The second response is that Amri et al. teach that some packets are "chopped into pieces" and that others are not. Even if chopping a packet into pieces somehow means that it does not read on the claims (and the

examiner submits that it does not), Amri et al. teach that some packets are not chopped into pieces and those packets still read on the claims, rendering the rejection valid.

Issue 3

In response to Applicant's argument that Gleeson has no disclosure related to signaling a protocol identifier determined in accordance with first protocol layers to second protocol layers, column 14, lines 17-59 teach a method of encapsulating the Compression ID (see especially column 14, lines 34—38 to see the encapsulation and column 14, lines 53-59 to see the de-encapsulation) and signaling it to the second protocol layers of said protocol stack.

In response to Applicant's argument that Gleeson does not teach signaling between protocol layers because the title of the Gleeson patent includes "...Using a Standard Protocol" and signaling between protocols is not a standard technique, the examiner has not relied on any teaching in the title of the Gleeson patent in making his rejection. Furthermore, the examiner has shown above that it is standard practice when performing encapsulation to signal data from first protocol layers to second protocol layers in order to transmit the data on the network.

In response to Applicant's argument that the Compression ID taught by Gleeson is similar to the PID taught by Amri et al. and, therefore, does not anticipate the claims, the examiner agrees that the Compression ID taught by Gleeson is similar to the PID taught by Amri et al. and that it, therefore, reads on claims 20-24.

Issue 4

In response to Applicant's argument that Stevens fails to disclose or suggest a means for signaling a protocol identifier to the second protocol layers, the value of which has been determined in accordance with the first layers, the examiner maintains that he has clearly

demonstrated in all of the office actions and in the responses above that Stevens does teach that a protocol identifier, the value of which has been determined by a first protocol layers, is signaled to a second protocol layers.

Issue 5

In response to Applicant's argument that the word "certain" does not render the claims indefinite, the examiner submits that it does render the claim indefinite because, at least, it cannot be determined what the difference is between "comprising first protocol layers" and "comprising certain first protocol layers". It does not appear from the specification that Applicant has provided any specific definition for the word certain. As such, the examiner has looked up the word certain in Merriam-Webster's Collegiate Dictionary, Tenth Edition and found the following definitions for the word certain:

1. Fixed, settled.
2. Of a specific but unspecified character, quantity, or degree.
3. Dependable, reliable.
4. Known or proved to be true; Indisputable.
5. Inevitable
6. Incapable of failing.
7. Destined.
8. Assured in mind or action.

Definitions 4, 5, 7, and 8 appear to not be possible definitions for the word certain as used in the claims. Definitions 1-3 and 6 are all possible definitions of the word certain and the context of its use renders it virtually impossible to determine which of the definitions applies in this

instance. It appears most likely that, based on the context of its use, that the intended definition is definition 2. However, that definition clearly states that word means "unspecified character, quantity, or degree". It wound be inappropriate to use the word "certain" with that definition in the claim because the definition of the word means that it is an "unspecified character, quantity, or degree", which clearly renders the claim indefinite because the word intentionally makes the bounds of the claim vague and necessarily makes it impossible to ascertain them.

Furthermore, in response to Applicant's arguments that the word "certain" as used does not render the claim indefinite, the examiner wishes to point out that Applicant has merely copied a possibly relevant portion of the MPEP and in essence has argued that because of whatever the MPEP says, the word is not indefinite. However, Applicant has made no effort to make any specific argument explaining what definition the word is intended to have or demonstrating that the examiner's finding of indefiniteness is improper.

In response to Applicant's argument that the word "generally" does not render claim 13 indefinite, the examiner submits that it does render the claim indefinite because of the reasons cited above.

The examiner wishes to point out that Applicant has not provided an argument regarding the remainder of the 35 U.S.C. 112 rejection of claim 13, specifically "defines in more detail a certain part of the first protocol layer generally defined by said first element". The examiner can only conclude that Applicant concedes that the rejection is valid. However, to further explain why such wording renders the claim indefinite, in order to understand the bounds of the claim limitation "defines in more detail", one must first understand how much detail the object was already defined in because the word more is relative. But by using the claim language "generally

defined", one cannot reasonably determine what level of detail "generally defined" is. If the bounds of the claim language "generally defined" cannot be determined, then the bounds of the claim language "in more detail" cannot be determined either.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Michael Joseph Molinari
May 21, 2004

Conferees
Huy Vu
Alpus Hsu

Clarence A Green
Perman & Green
425 Post Road
Fairfield, CT 06430

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

ALPUS H. HSU
PRIMARY EXAMINER